

REMARKS

Amendments

Claims 1-54 remain pending. Independent claims 1, 13, and 28 have been amended. Support for the amendments may be found in paragraph 41, at the top of page 20.

Rejection Under 35 U.S.C. § 103(a) over Watkins in View of Frisk

Claims 1-27 have been rejected as unpatentable over Watkins, WO 02/36196A1 in view of Frisk, U.S. Patent 6,117,541. Applicants respectfully traverse the rejection.

The present invention concerns applications that require both barrier properties and flexibility. See paragraph [0001]. The membranes of the present invention have increased barrier properties while maintaining the resilience of the membrane. Page 4, paragraph [0008]. The membranes are durable, capable of undergoing repeated flexing and deformation. Page 4, paragraph [0009]. In order to achieve improved barrier properties without reduced resilience, the laminar nano-filler has average platelet thickness of up to about 10 nanometers and platelet face sizes of from 0.1 to 1.5 microns in height and width directions.

The Frisk patent teaches that addition of its clay platelets, up to 100 nanometers thick and up to 5 microns wide, column 3 line 67 to column 4, line 2, *increases the stiffness* of its containers, column 4, lines 20-21. The Frisk patent further teaches that "substantial increases" in overall properties (heat stability and mechanical properties, of which stiffness is the specific property discussed), even when small amount of the clay are added. Column 4, lines 20-28.

The Watkins publication, like the present application, speaks of the need for flexible membranes for many applications. See Background, pages 1-2; page 3, lines 16-24; page 15, line 11 to page 17, line 6.

A person of ordinary skill in the art who desired to make a resilient membrane, as described in the Watkins publication, would not turn to the Frisk teachings because the Frisk patent specifically teaches that including its clay platelets will substantially increase the stiffness of the material, even when added in small amounts. Thus, one of ordinary skill in the art would be led away from making the present invention by the teachings of the Frisk patent. It is well-settled that a reference that teaches away an invention cannot make it obvious. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994).

For these reasons, Applicant respectfully asserts that the claims are patentable over the combination of references. Accordingly, Applicants request withdrawal of the rejection and reconsideration of the claims.

Rejection Under 35 U.S.C. § 103(a) over Watkins in View of Frisk, Fibiger, and Bagrodia

Claims 28-54 have been rejected as unpatentable over Watkins, WO 02/36196A1 in view of Frisk, U.S. Patent 6,117,541 and further in view of Fibiger et al., WO 00/47657 and Bagrodia et al., WO 01/92388A2. Applicants respectfully traverse the rejection.

The combination of the Watkins publication and the Frisk patent fail to suggest certain aspects of the bladder having an elastomeric membrane, as discussed above. The Fibiger and Bagrodia do not remedy the shortcomings of the first two references. Further, the additional references have been cited as disclosing articles of 10 or more layers; claims 28-54, however, are

directed to membranes that include one layer of a microlayer polymeric composite. As explained in paragraphs 49-53 on pages 23-25.

Applicants do not understand the emphasis the Office Action places on the Fibiger document's disclosure of articles weighing more than one kilogram. This weight would be highly undesirable in a bladder, in a bladder for cushioning, in a shoe containing a cushioning bladder, and in a ball containing an inflating bladder. The Office Action has not connected this weight to the present claims.

For all of these reasons, Applicant respectfully asserts that the claims are patentable over the combination of references. Accordingly, Applicants request withdrawal of the rejection and reconsideration of the claims.

Obviousness-Type Double Patenting

Claims 1-54 have been provisionally rejected under the judicially-created doctrine of obviousness-type double patenting over claims 20-25 of copending Application No. 09/704881 in view of Frisk, U.S. Patent 6,117,541.

Applicants respectfully submit that, as argued above, the Frisk patent teaches away from including its clay platelets in a resilient or elastomeric membrane.

For this reason, Applicants submit that the claims are patentable over the copending application.

CONCLUSION

Applicants believe that the claims are in condition for allowance, and an early allowance of the application is earnestly requested.

The Examiner is invited to telephone the undersigned if it would be helpful for resolving any issue.

Respectfully submitted,

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